The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

> 58 - 65,
> 6 - 11.5,
> 14 - 20,
> 3 - 6,
>4.5-10,
0 - 1.5,
> 1.5 - 6,
> 3, and
0 - < 2,

and essentially no alkali oxides.

2. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO ₂	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - 0.5

and essentially no alkali oxides.

- 3. (Previously Presented) An aluminoborosilicate glass according to Claim 1, containing at most 5% by weight MgO based on oxide.
- 4. (Previously Presented) An aluminoborosilicate glass according to Claim 1, containing at least 60% by weight SiO₂ based on oxide.
- 5. (Previously Presented) An aluminoborosilicate glass according to Claim 1, containing more than 11% by weight MgO, CaO, SrO and BaO together based on oxide.

6. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

0.0	
SiO ₂	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - 1.5,
BaO	> 1.5 - 6
with SrO + BaO	> 3,
ZnO	0 - < 2,
ZrO_2	0-2,
TiO ₂	0-2,
With $ZrO_2 + TiO_2$	0-2, $0-2$,
As_2O_3	•
	0 - 1.5,
$\mathrm{Sb_2O_3}$	0 - 1.5,
SnO_2	0 - 1.5,
CeO_2	0 - 1.5,
Cl.	0 - 1.5,
F ⁻	0 - 1.5,
SO_4^{2-}	0 - 1.5, and
Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl$,
$+F$ + SO_4^2	0 - 1.5,
-	,

and essentially no alkali oxides.

- 7. (Cancelled)
- 8. (Original) An aluminoborosilicate glass according to claim 1, having a ratio of MgO/CaO by weight of less than 1.
- 9. (Original) An aluminoborosilicate glass according to claim 1, having a ratio of MgO/CaO by weight of less than 0.7.
- 10. (Previously Presented) An aluminoborosilicate glass according to claim 1, containing at least 5% by weight CaO based on oxide.

- 11. (Previously Presented) An aluminoborosilicate glass according to claim 1, containing > 7 to \leq 11% by weight B₂O₃ based on oxide.
- 12. (Previously Presented) An aluminoborosilicate glass according to claim 1, containing > 2.5% to $\le 5\%$ by weight BaO based on oxide.
 - 13. (Cancelled)
- 14. (Currently Amended) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

$\underline{\mathrm{SiO}_2}$	> 58 - 65
B_2O_3	$\geq 6 - 11.5$
Al_2O_3	$\geq 14 - 20$,
<u>MgO</u>	$\geq 3 - 6$,
CaO	\geq 4.5 – 10,
<u>SrO</u>	0 - 1.5,
BaO	$\geq 1.5 - 6$,
with $SrO + BaO$	\geq 3, and
ZnO	$\geq 0 - \leq 0.5$

An aluminoborosilicate glass according to claim 1, containing more than 0 to up to 0.5% by weight ZnO based on oxide.

15. (Currently Amended) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

$\underline{\mathrm{SiO}}_{2}$	$\geq 58 - 65$
$\underline{\mathbf{B}_2\mathbf{O}_3}$	> 6 - 11.5
Al_2O_3	$\geq 14 - 20$,
<u>MgO</u>	> 3 - 6,
CaO	> 4.5 - 10,
<u>SrO</u>	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	\geq 3, and
ZnO	$> 0 - \le 1.5$,

and essentially no alkali oxides

An aluminoborosilicate glass according to claim 1, containing more than 0 to up to 1.5% by weight ZnO based on oxide.

16. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO ₂	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - < 2,
ZrO ₂	\leq 0.5, and
TiO ₂	≤ 0.5 ,

and essentially no alkali oxides.

- 17. (Previously Presented) An aluminoborosilicate glass according to Claim 2, containing at most 5% by weight MgO based on oxide.
- 18. (Previously Presented) An aluminoborosilicate glass according to Claim 2, containing at least 60% by weight SiO₂ based on oxide.
- 19. (Previously Presented) An aluminoborosilicate glass according to Claim 2, containing more than 11% by weight based on oxide MgO, CaO, SrO and BaO is greater together.
- 20. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO ₂	0 - 2,
TiO ₂	0-2,
	•

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Wherein
$$As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl^2 + F^2 + SO_4^{2-2}$$
 0 - 1.5,

and essentially no alkali oxides.

- 21. (Cancelled)
- 22. (Original) An aluminoborosilicate glass according to claim 2, having a ratio of MgO/CaO by weight of less than 1.
- 23. (Original) An aluminoborosilicate glass according to claim 2, having a ratio of MgO/CaO by weight of less than 0.7.
- 24. (Previously Presented) An aluminoborosilicate glass according to claim 2, containing at least 5% by weight CaO based on oxide.
- 25. (Previously Presented) An aluminoborosilicate glass according to claim 2, containing > 7 to $\le 11\%$ by weight B_2O_3 based on oxide.
- 26. (Previously Presented) An aluminoborosilicate glass according to claim 2, containing > 2.5% to $\le 5\%$ by weight BaO based on oxide.
 - 27. (Cancelled)
- 28. (Currently Amended) <u>An alkali-free aluminoborosilicate glass</u> consisting of by weight % based on oxide,

 $\frac{\text{SiO}_2}{\text{B}_2\text{O}_3}$ $\frac{> 58 - 65}{> 6 - 11.5}$,

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Al_2O_3	$\geq 14 - 20$,
MgO	> 3 - 6,
<u>CaO</u>	\geq 4.5 – 10,
<u>SrO</u>	0 - < 4
<u>BaO</u>	$\geq 2.5 - 6$
with $SrO + BaO$	\geq 3, and
<u>ZnO</u>	$\geq 0 - \leq 0.5$

An aluminoborosilicate glass according to claim 2, containing more than 0 to up to 0.5% by weight ZnO based on oxide.

29. (Currently Amended) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

$\geq 58 - 65$
\geq 6 – 11.5,
$\geq 14 - 20$,
\geq 3 – 6,
\geq 4.5 – 10,
0 - 1.5,
> 1.5 - 6,
\geq 3, and
$\geq 0 - \leq 2.0$,

and essentially no alkali oxides

An aluminoborosilicate glass according to claim 1, containing more than 0 to up to <2.0% by weight ZnO based on oxide.

30. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO_2	≤ 0.5 , and
TiO ₂	≤ 0.5 ,

- 31. (Previously Presented) An aluminosilicate glass according to claim 2, containing up to 3% by weight SrO based on oxide.
- 32. (Original) A substrate glass in thin-film photovoltaics or a display comprising an alkali-free aluminoborosilicate glass according to claim 1.
- 33. (Original) A TFT display or a thin-film solar cell comprising an alkali-free aluminoborosilicate glass according to claim 1.
- 34. (Original) A substrate glass in thin-film photovoltaics or a display comprising an alkali-free aluminoborosilicate glass according to claim 2.
- 35. (Original) A TFT display or a thin-film solar cell comprising an alkali-free aluminoborosilicate glass according to claim 2.

36-45. (Cancelled)

- 46. (Previously Presented) An aluminoborosilicate glass according to claim 6 containing Sb₂O₃.
- 47. (Previously Presented) An aluminoborosilicate glass according to claim 20 containing Sb₂O₃.
- 48. (Previously Presented)An aluminoborosilicate glass according to claim 1 that has a density of less than 2.6 g/cm³.
- 49. (Previously Presented)An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

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 SiO_2 > 58 - 65, B_2O_3 > 6 - 11.5, Al_2O_3 > 14 - 20,

```
MgO
                                                         > 3 - 6,
CaO
                                                         >4.5-10,
SrO
                                                         0 - 1.5,
BaO
                                                         > 1.5 - 6,
with SrO + BaO
                                                        > 3,
ZnO
                                                         0 - < 2,
ZrO_2
                                                        0 - 2,
TiO<sub>2</sub>
                                                        0 - 2,
With ZrO_2 + TiO_2
                                                        0 - 2,
As_2O_3
                                                        0 - 1.5,
                                                        0 - 1.5,
Sb<sub>2</sub>O<sub>3</sub>
                                                        0 - 1.5,
CeO_2
Cl.
                                                        0 - 1.5,
F
                                                        0 - 1.5,
SO_4^{2-}
                                                        0 - 1.5, and
Wherein As_2O_3 + Sb_2O_3 + CeO_2 + Cl^2 + F^2 +
SO_4^{2-}
                                                        0 - 1.5,
```

50. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

```
SiO<sub>2</sub>
                                                               > 58 - 65,
B_2O_3
                                                               > 6 - 11.5,
Al_2O_3
                                                               > 14 - 20,
MgO
                                                               > 3 - 6,
                                                               >4.5-10,
CaO
SrO
                                                               0 - 1.5,
BaO
                                                               > 1.5 - 6,
with SrO + BaO
                                                               > 3,
ZnO
                                                               0 - < 2
ZrO<sub>2</sub>
                                                              0 - 2,
TiO<sub>2</sub>
                                                              0 - 2,
With ZrO_2 + TiO_2
                                                              0 - 2,
As_2O_3
                                                              0 - 1.5,
Sb<sub>2</sub>O<sub>3</sub>
                                                              0 - 1.5,
                                                              0 - 1.5,
SnO_2
CeO<sub>2</sub>
                                                              0 - 1.5,
                                                              0 - 1.5,
SO<sub>4</sub><sup>2</sup>-
                                                              0 - 1.5, and
Wherein As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + F^- +
SO_4^{2-}
                                                              0 - 1.5,
```

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51. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10
	0 - < 4,
BaO	> 2.5 - 6
With SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO_2	0 - 2,
TiO ₂	0-2,
With $ZrO_2 + TiO_2$	0-2,
As_2O_3	0 - 1.5
Sb_2O_3	0 - 1.5, $0 - 1.5$,
50,03	0 1.5,
CeO_2	0 - 1.5,
Cl ⁻	0 - 1.5,
F ⁻	0 - 1.5,
SO_4^{2-}	0 - 1.5, and
·	,
Wherein $As_2O_3 + Sb_2O_3 + CeO_2 + Cl^2 + F^2 +$	
SO_4^{2-}	0 - 1.5,

and essentially no alkali oxides.

52. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65,
$\mathrm{B}_2\mathrm{O}_3$	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO_2	0 - 2,
TiO ₂	0-2,
	•

$$\begin{array}{lll} \text{With } ZrO_2 + TiO_2 & 0-2, \\ As_2O_3 & 0-1.5, \\ Sb_2O_3 & 0-1.5, \\ SnO_2 & 0-1.5, \\ CeO_2 & 0-1.5, \\ \end{array}$$

$$\begin{array}{lll} F^* & 0-1.5, \\ SO_4^{2^-} & 0-1.5, \\ and \end{array}$$

$$\begin{array}{lll} \text{Wherein } As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + F^- + \\ SO_4^{2^-} & 0-1.5, \end{array}$$

53. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - < 2,
ZrO_2	0 - 2,
TiO_2	0 - 2,
With $ZrO_2 + TiO_2$	0-2,
As_2O_3	0-1.5,
Sb_2O_3	0 - 1.5, $0 - 1.5$,
SnO_2	0 - 1.5,
	· 1.0,
Cl ⁻	0 - 1.5,
F ⁻	0 - 1.5,
SO_4^{2-}	0 - 1.5, and
Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + Cl^- + F^- +$	-
SO_4^{2-}	0 - 1.5,

and essentially no alkali oxides.

54. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide, SiO₂

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> 58 - 65,

```
> 6 - 11.5,
B_2O_3
                                                       > 14 - 20,
Al_2O_3
                                                       > 3 - 6,
MgO
                                                       >4.5-10,
CaO
                                                       0 - < 4,
SrO
                                                       > 2.5 - 6,
BaO
with SrO + BaO
                                                       > 3,
ZnO
                                                       0 - 0.5,
ZrO_2
                                                       0 - 2,
TiO<sub>2</sub>
                                                       0 - 2,
With ZrO_2 + TiO_2
                                                       0 - 2,
As_2O_3
                                                       0 - 1.5,
                                                       0 - 1.5,
Sb_2O_3
                                                       0 - 1.5,
SnO_2
Cl
                                                       0 - 1.5,
\mathbf{F}^{-}
                                                       0 - 1.5,
SO_4^{2-}
                                                       0 - 1.5, and
Wherein As_2O_3 + Sb_2O_3 + SnO_2 + Cl^- + F^- + SO_4^{2-}
                                                             0 - 1.5,
```

55. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - < 2,
ZrO_2	0-2,
TiO ₂	0-2,
With $ZrO_2 + TiO_2$	0-2,
As_2O_3	0 - 1.5,
Sb_2O_3	0 - 1.5,
SnO_2	0 - 1.5,
CeO_2	0 - 1.5,
CI	0 - 1.5,
F .	0 - 1.5,
SO_4^{2-}	0 - 1.5, and

Wherein
$$As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl^- + F^- + SO_4^{2-}$$
 0 - 1.5,

and essentially no alkali oxides, and wherein the glass does not contain at least one of ZrO_2 or TiO_2 .

56. (Previously Presented) An alkali-free aluminoborosilicate glass consisting of by weight % based on oxide,

SiO ₂	> 58 - 65
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	>4.5-10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3,
ZnO	0 - 0.5,
ZrO_2	0 - 2,
TiO ₂	0-2,
with $ZrO_2 + TiO_2$	0-2,
As_2O_3	0 - 1.5
Sb_2O_3	0 - 1.5,
SnO ₂	0-1.5,
CeO_2	0 - 1.5,
Cl.	0 - 1.5,
F ⁻	0-1.5,
SO_4^{2-}	0 - 1.5, and
Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl$	

$$+ F' + SO_4^{2}$$

$$0 - 1.5,$$

and essentially no alkali oxides, and wherein the glass does not contain at least one of ZrO_2 or TiO_2 .

- 57. (New) An alkali-free aluminoborosilicate glass according to claim 6 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.
- 58. (New) An alkali-free aluminoborosilicate glass according to claim 20 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.

- 59. (New) An alkali-free aluminoborosilicate glass according to claim 53 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.
- 60. (New) An alkali-free aluminoborosilicate glass according to claim 54 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.
- 61. (New) An alkali-free aluminoborosilicate glass according to claim 55 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.
- 62. (New) An alkali-free aluminoborosilicate glass according to claim 56 that contains As₂O₃ or Sb₂O₃, or does not contain SnO₂ or Cl⁻.
- 63. (New) An alkali-free aluminoborosilicate glass according to claim 6 that does not contain SnO₂ or ZrO₂.
- 64. (New) An alkali-free aluminoborosilicate glass according to claim 20 that does not contain SnO₂ or ZrO₂.
- 65. (New) An alkali-free aluminoborosilicate glass according to claim 53 that does not contain SnO₂ or ZrO₂.
- 66. (New) An alkali-free aluminoborosilicate glass according to claim 54 that does not contain SnO₂ or ZrO₂.
- 67. (New) An alkali-free aluminoborosilicate glass according to claim 55 that does not contain SnO₂ or or ZrO₂.
- 68. (New) An alkali-free aluminoborosilicate glass according to claim 56 that does not contain SnO₂ or ZrO₂.

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